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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,180	08/22/2006	Ralph J. Koerner	204/505	3511

7590 10/15/2007  
Arthur Freilich  
Freilich, Hornbaker & Rosen  
9045 Corbin Avenue  
Suite 260  
Northridge, CA 91324

EXAMINER
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DURHAM, NATHAN E

ART UNIT	PAPER NUMBER
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3765

MAIL DATE	DELIVERY MODE
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10/15/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/590,180

Applicant(s)

KOERNER, RALPH J.

Examiner

Nathan E. Durham

Art Unit

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

5 form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10

Claims 1, 2, 4, 5 and 7-16 are rejected under 35 U.S.C. 102(b) as being anticipated by EBATA (U.S. Publication 2001/0050036).

Regarding claim 1, EBATA discloses an apparatus for inserting stitches of uniform length through a stack of one or more fabric layers wherein the apparatus

15 comprises a fixed located stitch head (7) including a needle (71) mounted for cyclic vertical movement (Fig. 1) (Paragraphs 0018 and 0019). EBATA discloses a bed (2) defining a substantially horizontally oriented first planar surface mounted opposite the stitch head (Fig. 1). EBATA discloses a frame (21) configured to retain a fabric layer stack in a substantially taut condition adjacent the first planar surface (Fig. 1)

20 (Paragraphs 0018 and 0019). EBATA discloses means (7 and/or the wheel as shown in figure 1 at end of frame 21) supporting said frame for manually guided movement to move said stack across the first planar surface (Fig. 1). It is inherent in the structure as shown in the art that the guided movement is manual guided movement because the user is always involved in the sewing process. For example, the user can push/pull the

25 frame attached to the carriage, the user can manually input commands for movement of

the frame, and/or the user can input embroidery data which moves the embroidery frame. EBATA discloses a detector (32) for producing one or more signals representing the magnitude of translational movement of the frame (i.e. displacement/distance) (Fig. 2) (Paragraphs 0030 and 0055). EBATA discloses control means responsive to the  
5 detector signals indicating a magnitude of translational movement exceeding a threshold magnitude (i.e. particular displacement/distance) for causing said needle to execute a cyclic movement from an up position remote from the stack, to a down position piercing said stack, and back to an up position (i.e. setting/changing speed of stitch forming mechanism) (Paragraphs 0030-0057) (Summary) (Figures 2-6).

10       Regarding claims 2 and 4, EBATA discloses a substantially horizontal oriented second planer surface (top surface of embroidery frame 21) wherein the means supporting the frame include bearings (7 and/or the wheel as shown in figure 1 at end of frame 21) engaging the second planar surface (Fig. 1). Dictionary.com defines a  
"bearing" as "the support and guide for a rotating, oscillating, or sliding shaft, pivot, or  
15 wheel". Both of the bearings of EBATA are considered slide members because they both slide across a surface.

      Regarding claim 5 and 7, EBATA discloses the detector being coupled to the frame for movement therewith (Paragraph 0030). It is inherent that the detector comprises an arm because the detector itself can be considered an "arm". EBATA  
20 discloses the detector (and arm) being attached to the frame and the detector producing signals based on the movement (i.e. displacement) of the frame and detector.

Claims 8-16 are rejected under 35 U.S.C. 102(b) by EBATA for the reasons as discussed above. Regarding claim 14, refer to paragraph 0057 of EBATA. Regarding claim 9, refer to paragraph 0006 of EBATA and the detailed disclosure.

5

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over EBATA (U.S. Publication 2001/0050036).

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EBATA discloses an apparatus and method for inserting stitches of uniform length through a stack of fabric layers as discussed above. However, EBATA fails to disclose the bearings comprising a plurality of wheels. EBATA discloses only one wheel (Fig. 1). It is known in the art for a plurality of wheels to be included on an embroidery frame to reduce the amount of friction produced between the embroidery frame and the planar surface of the sewing machine and allow the embroidery frame to move smoothly. Accordingly, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have provided the bearings of EBATA with a plurality of wheels in order to reduce the amount of friction produced between the embroidery frame and the planar surface of the sewing machine and allow the embroidery frame to move smoothly.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over EBATA (U.S. Publication 2001/0050036) in view of SCHWEIZER (U.S. Publication 2003/0131773).

5 EBATA discloses an apparatus and method for inserting stitches of uniform length through a stack of fabric layers as discussed above. However, EBATA fails to disclose the detector comprising an optical detector responsive to reflected light. EBATA does not specify the specific structure of the detector. It is old and known in the art for the position and/or movement of an object to be detected with a detector  
10 comprising optic elements responsive to reflected light. SCHWEIZER teaches such a device wherein a detector (33) comprising optical elements responsive to reflected light is used in order to easily and accurately detect the position/movement of a material (or embroidery frame) being sewn (Fig. 2) (disclosure). Accordingly, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to  
15 have provided the detector of EBATA with an optical detector responsive to reflected light, in light of the teachings of SCHWEIZER, in order to easily and accurately detect the position/movement of the embroidery frame.

### ***Conclusion***

20 The prior art made of record, as cited on attached PTO-892, and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan E. Durham whose telephone number is (571) 272-8642. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

5 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary L. Welch can be reached on (571) 272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for  
10 published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a  
15 USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

20 NED

  
GARY L. WELCH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700